Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte ROBERT P. LYONS, JEFFREY E. SHAYA
and MARK C. PINKOWSKI

_____

Appeal No. 1997-0552
Application No. 08/267,490

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ON BRIEF

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Before KRASS, LALL, and DIXON, **Administrative Patent Judges**.

DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-30, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellants' invention relates to a method and apparatus for manufacturing a programmed electronic control unit (ECU) for use in an anti-lock braking (ABS) system. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method for manufacturing a programmed ECU for use in an anti-lock braking (ABS) system in a manufacturing area, the method comprising the steps of:

providing a memory programmer having a programming head in the manufacturing area;

programming the memory programmer with an ABS control program for the ABS system and at least one test program;

conveying a semiconductor having non-volatile memory space to the programming head, the programming head receiving and retaining the semiconductor;

utilizing the memory programmer to program at least a portion of the non-volatile memory space with the ABS control program;

utilizing the memory programmer to test the programmed semiconductor with the at least one test program;

providing a marker in the manufacturing area;

programming the marker with a marking program;

conveying the programmed semiconductor to the marker;

receiving and retaining the programmed semiconductor on the marker;

utilizing the marker to mark a surface of the semiconductor with indicia related to the ABS system based on the marking program;

providing a semiconductor mounting system in the manufacturing area;

conveying the marked semiconductor to the mounting system; and

utilizing the mounting system to automatically mount the marked semiconductor at a predetermined position on a circuit board to obtain the programmed ECU.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Lappington	4,084,240	Apr. 11, 1978
Kidston	5,273,349	Dec. 28, 1993

Claims 1-30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lappington in view of Kidston.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 15, mailed Aug. 7, 1996) for the examiner's reasoning in support of the rejections, and to appellants' brief (Paper No. 14, filed May 23, 1996) for appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we make the determinations which follow.

While we agree with the examiner that Lappington provides a strong motivation to incorporate semiconductor programming functionality into the manufacturing or assembly environment, the examiner has not addressed the language of the claims to which the rejection is addressed. Appellants argue that the claimed invention is directed to a different invention than is Lappington.

Appellants repeatedly argue that the claimed invention is directed to the automatic programming, testing, marking and mounting of a semiconductor in a manufacturing area. (See brief at page 5, 8, 9 and 10.) We agree with appellants. The examiner has not addressed the automatic nature of the claimed invention. While we find the limitation containing the term "automatic" only in the last step involving the mounting, the claim recites that the semiconductor is conveyed between the steps and that the programming head is "receiving and retaining" the semiconductor. In light of the specification and the combination of conveying of the semiconductor with the receipt and retention of the semiconductor, the claimed process and apparatus are automatic rather than manual. We

find that the examiner has not addressed this feature of the claimed invention. While the examiner has maintained that Lappington teaches the use of a "standard manufacturing process" to manufacture the electronic control units, the examiner summarily concludes that "[p]ractitioners in the art would have found it obvious [that] a structure is required to automatically program such particular application [in]to the EPROM unit. Marking device, testing and mounting [of the] programmable unit to the controller are obvious in mass production, especially, in electronic manufacturing art." (See answer at pages 7 and 8.) The examiner has provided no evidence or convincing line of reasoning to support the ultimate conclusion of obviousness. While we do not disagree with the examiner that many of the individual aspects of the claimed invention may have been well known in the manufacturing art, the examiner has not provided evidence thereof nor has the examiner provided a convincing line of reasoning for combining these separate functions into an automatic system. Clearly, Lappington and Kidston do not teach or fairly suggest the invention as claimed in claims 1 and 15.

We do not consider the rejection over Lappington and Kidston to be well taken. In the first place, the examiner cites no evidence or reasoning to support his conclusion that it would have been obvious to have an automatic system. A rejection based on § 103 must rest on a factual basis, which the PTO has the duty of supplying; the PTO "may not, because it may doubt that the invention is patentable, resort to speculation, unfounded

assumptions or hindsight reconstruction to supply deficiencies in its factual basis." **In re Warner**, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), **cert. denied**, 389 U.S. 1057 (1968), quoted in **In re GPAC, Inc.**, 57 F.3d 1573, 1582, 35 USPQ2d 1116, 1123 (Fed. Cir. 1995). Here, the examiner's conclusion of unpatentability appears to have been based on improper hindsight gleaned from appellants' disclosure. Therefore, we will not sustain the rejection of claims 1-30.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-30 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS Administrative Patent Judge	)))))) BOARD OF PATENT
PARSHOTAM S. LALL Administrative Patent Judge	) APPEALS) AND) INTERFERENCES
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APPLICATION NO. 08/267,490

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APJ KRASS

APJ LALL

DECISION: **REVERSED**

Prepared By: LETICIA PIHULIC

DRAFT TYPED: 06 Jun 01

FINAL TYPED: